

and used to enter the table, then the cause value from that message is used in a REL from the CCM. The next function and next index point to the next table.

Figure 17 depicts an example of the message table. This table allows the CCM to alter information in outgoing messages. Message type is used to enter the table, and it represents the outgoing standard SS7 message type. The parameter is the pertinent parameter within the outgoing SS7 message. The indexes point to various entries in the trunk group table and determine if parameters can be unchanged, omitted, or modified in the outgoing messages.

Those skilled in the art will appreciate that variations from the specific embodiments disclosed above are contemplated by the invention. The invention should not be restricted to the above embodiments, but should be measured by the following claims.

CLAIMS

What is claimed is:

1. A communication network comprising:

a signaling processing system configured to receive signaling identifying a first connection for a call, process the signaling to select an identifier and a second connection, transfer a first message indicating the first connection and the identifier, and
5 transfer a second message indicating the identifier and the second connection;

a first asynchronous communication system configured to receive user communications for the call and the first message, interwork the user communications into asynchronous communications in response to the first message, and transfer the asynchronous communications based on the identifier;

10 an optical network configured to receive the asynchronous communications from the first asynchronous communication system and transfer the asynchronous communications over an optical ring; and

a second asynchronous communication system configured to receive the asynchronous communications from the optical network and the second message,
15 interwork the asynchronous communications into the user communications based on the identifier, and transfer the asynchronous communications over the second connection in response to the second message.

2. The communication system of claim 1 wherein the identifier identifies
20 an asynchronous connection provisioned from the first asynchronous communication system through the optical network to the second asynchronous communication system before the call.

3. The communication system of claim 1 wherein the optical network
25 comprises a metropolitan area network.

4. The communication system of claim 1 wherein the first connection is coupled to a first local network and the second connection is coupled to a second local network.

5. The communication system of claim 1 wherein the first connection is coupled to a local network and the second connection is coupled to an interexchange network.

5 6. The communication system of claim 1 wherein the first connection is coupled to a local network and the second connection is coupled to an international network.

 7. The communication system of claim 1 wherein the signaling comprises
10 Signaling System 7 signaling.

 8. The communication system of claim 1 wherein the signaling comprises an initial address message.

15 9. The communication system of claim 1 wherein the signaling processing system is configured to process a called number from the signaling to select the identifier and the second connection.

20 10. The communication system of claim 1 wherein the signaling processing system is configured to process a caller number from the signaling to select the identifier and the second connection.

25 11. The communication system of claim 1 wherein the signaling processing system is configured to process the signaling to select the identifier and the second connection to provide local number portability.

 12. The communication system of claim 1 wherein the signaling processing system is configured to process the signaling to access a service control point to select the identifier and the second connection.

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14. The communication system of claim 1 wherein the signaling
5 processing system is configured to receive and process address complete, answer, and
release messages for the call.

16. The communication system of claim 1 further comprising a service platform configured to receive and process the user communications from the second connection to provide tone detection.

17. A method for communicating over networks, the method comprising:
receiving signaling identifying a first connection for a call into a signaling
processing system;

in the signaling processing system, processing the signaling to select an
5 identifier and a second connection;

transferring a first message indicating the first connection and the
identifier from the signaling processing system to a first asynchronous communication
system;

transferring a second message indicating the identifier and the second
10 connection from the signaling processing system to a second asynchronous
communication system;

receiving user communications for the call and the first message into the
first asynchronous communication system;

in the first asynchronous communication system, interworking the user
15 communications into asynchronous communications in response to the first message,

transferring the asynchronous communications based on the identifier
from the first asynchronous communication system to an optical network;

receiving the asynchronous communications from the first asynchronous
communication system into the optical network;

20 transferring the asynchronous communications over the optical ring;

receiving the asynchronous communications from the optical network and
the second message into the second asynchronous communication system;

in the second asynchronous communication system, interworking the
asynchronous communications into the user communications based on the identifier; and

25 transferring the asynchronous communications over the second connection
from the second asynchronous communication system in response to the second message.

18. The method of claim 17 wherein the identifier identifies an
asynchronous connection provisioned from the first asynchronous communication system

through the optical network to the second asynchronous communication system before the call.

19. The method of claim 17 wherein the optical network comprises a
5 metropolitan area network.

20. The method of claim 17 wherein the first connection is coupled to a first local network and the second connection is coupled to a second local network.

10 21. The method of claim 17 wherein the first connection is coupled to a local network and the second connection is coupled to an interexchange network.

22. The method of claim 17 wherein the first connection is coupled to a local network and the second connection is coupled to an international network.
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23. The method of claim 17 wherein the signaling comprises Signaling System 7 signaling.

24. The method of claim 17 wherein the signaling comprises an initial
20 address message.

25. The method of claim 17 further comprising in the signaling processing system, processing a called number from the signaling to select the identifier and the second connection.
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26. The method of claim 17 further comprising in the signaling processing system, processing a caller number from the signaling to select the identifier and the second connection.

27. The method of claim 17 further comprising in the signaling processing system, processing the signaling to select the identifier and the second connection to provide local number portability.

5 28. The method of claim 17 further comprising in the signaling processing system, processing the signaling to access a service control point to select the identifier and the second connection.

10 29. The method of claim 17 further comprising in the signaling processing system, generating billing information for the call.

15 30. The method of claim 17 further comprising in the signaling processing system, receiving and processing address complete, answer, and release messages for the call.

20 31. The method of claim 17 further comprising in the service platform, receiving and processing the user communications from the second connection to provide voice messaging.

25 32. The method of claim 17 further comprising in the service platform, receiving and processing the user communications from the second connection to provide tone detection.